CLAIMS

What is claimed is:

1. An isolated nucleic acid molecule comprising a portion of SEQ ID NO: 3, wherein said portion is at least 10 nucleotides in length and includes nucleotide position 29 of exon 10 of a glycerol kinase (GK) gene, and wherein said nucleic acid molecule comprises a mutant allele of said GK gene at said nucleotide position 29.

2. A complement strand of a nucleic acid molecule, wherein said nucleic acid molecule comprises a portion of SEQ ID NO: 3, wherein said portion is at least 10 nucleotides in length and includes nucleotide position 29 of exon 10 of a glycerol kinase (GK) gene, and wherein said nucleic acid molecule comprises a mutant allele of said GK gene at said nucleotide position 29.

3. The nucleic acid molecule of claim 1, wherein said portion is at least 20 nucleotides in length.

4. The nucleic acid molecule of claim 1, wherein said portion is at least 50 nucleotides in length.

5. The nucleic acid molecule of claim 1, wherein said mutant allele comprises a nucleotide selected from the group consisting of a guanosine, a thymidine, and a cytidine at said nucleotide position 29.

6. The nucleic acid molecule of claim 5, wherein said nucleic acid molecule comprises a guanosine at said nucleotide position 29.

7. The nucleic acid molecule of claim 1, wherein the nucleic acid molecule is selected from the group consisting of DNA, RNA, and polypeptide nucleic acid (PNA).

8. The nucleic acid molecule of claim 1, wherein the nucleic acid molecule comprises a label.

9. The nucleic acid molecule of claim 8, wherein the label is selected from the group consisting of a radioisotope, a fluorescent compound, an enzyme, and an enzyme cofactor.

10. The nucleic acid molecule of claim 1, wherein the nucleic acid molecule is immobilized on a solid support.

11. The nucleic acid molecule of claim 10, wherein the nucleic acid molecule is one of an array of two or more different nucleic acid molecules immobilized on said solid support.

12. An isolated nucleic acid molecule comprising SEQ ID NO: 3, wherein said nucleic acid molecule comprises a mutant allele at nucleotide position 29 of exon 10 of a glycerol kinase (GK) gene.

13. A complement strand of a nucleic acid molecule, wherein said nucleic acid molecule comprises SEQ ID NO: 3, wherein said nucleic acid molecule comprises a mutant allele at nucleotide position 29 of exon 10 of a glycerol kinase (GK) gene.

14. The nucleic acid molecule of claim 12, wherein said nucleic acid molecule is at least 250 nucleotides in length.

15. The nucleic acid molecule of claim 12, wherein said mutant allele comprises a nucleotide selected from the group consisting of a guanosine, a thymidine, and a cytidine at said nucleotide position 29.

16. The nucleic acid molecule of claim 15, wherein said nucleic acid molecule comprises a guanosine at said nucleotide position 29.

17. The nucleic acid molecule of claim 12, wherein the nucleic acid molecule is selected from the group consisting of DNA, RNA, and polypeptide nucleic acid (PNA).

18. The nucleic acid molecule of claim 12, wherein the nucleic acid molecule comprises a label.

19. The nucleic acid molecule of claim 18, wherein the label is selected from the group consisting of a radioisotope, a fluorescent compound, an enzyme, and an enzyme cofactor.

20. The nucleic acid molecule of claim 12, wherein the nucleic acid molecule is immobilized on a solid support.

21. The nucleic acid molecule of claim 20, wherein the nucleic acid molecule is one of an array of two or more different nucleic acid molecules immobilized on said solid support.

22. An isolated nucleic acid molecule which specifically hybridizes to a portion of SEQ ID NO: 3, wherein said portion is at least 10 nucleotides in length and includes nucleotide position 29 of exon 10 of a glycerol kinase (GK) gene, and wherein said nucleic acid molecule comprises a mutant allele of said GK gene at said nucleotide position 29.

23. An isolated nucleic acid molecule consisting of a portion of SEQ ID NO: 3, wherein said portion is at least 10 nucleotides in length and includes nucleotide position 29 of exon 10 of a glycerol kinase (GK) gene, and wherein said nucleic acid molecule comprises a mutant allele of said GK gene at said nucleotide position 29.

24. An isolated nucleic acid molecule consisting of SEQ ID NO: 3, wherein said nucleic acid molecule comprises a mutant allele at nucleotide position 29 of exon 10 of a glycerol kinase (GK) gene at said nucleotide position 29.